CLAIMS:

1. A writing method of a nonvolatile semiconductor memory device for storing data of 2 or more bits in one memory cell by setting threshold voltages of the memory cells into n ($n \geq 4$) thereof, comprising the steps of:

setting the n of threshold voltage by changing them toward a predetermined direction starting from a first threshold voltage and classifying (n - 1) of the threshold voltage except for the first threshold value to k ($2 \leq k \leq n - 2$) groups so that, between the remotest threshold voltage from the first threshold voltage in one of the groups and the nearest threshold voltage to the first threshold voltage, there is no threshold voltage which belongs to the other groups; and

setting said (n - 1) of threshold voltage starting from the group having the threshold voltage which is remoter from the first threshold voltage and sequentially setting the threshold voltage in the same group starting from the threshold voltage which is nearer to the first threshold voltage.

2. A writing method of a nonvolatile semiconductor memory device according to Claim 1, wherein

among said k groups, the group to which the remotest threshold voltage from the first threshold voltage belongs has the remotest threshold voltage.

3. A writing method of a nonvolatile semiconductor memory device according to Claim 1 or 2, further comprising the step of

in the case of setting the threshold voltage which belongs to each of said groups, setting the threshold voltage which is the i-th nearest to the first threshold voltage in the group to the memory cell to which the threshold voltage that is the j-th ($i < j$) nearest to the first threshold voltage is set.

4. A writing method of a nonvolatile semiconductor memory device for storing data of 2 bits in one memory cell by setting threshold voltages of the memory cells into four thereof, comprising the step of

setting the four of the threshold voltage by changing them toward a predetermined direction starting from a first threshold voltage, classifying the three of threshold voltage excluding the first threshold voltage to two groups, causing, among said three of threshold value, the remotest threshold voltage from the first threshold voltage and the nearest threshold voltage from the first threshold voltage to belong to different group, setting the threshold voltage which belongs to the group including the remotest threshold voltage from the first threshold voltage prior to setting of the threshold voltage which belongs to the group including the nearest threshold voltage to the first threshold voltage, and sequentially setting the threshold voltages in the same group in order of the threshold voltage

which is nearer to the first threshold voltage.

5. A writing method of a nonvolatile semiconductor memory device according to Claim 4, further comprising the step of

in the case of setting the nearest threshold voltage to the first threshold voltage in the group in which the number of threshold voltages belonging to the group is two among said groups, setting said nearest threshold voltage to the memory cell to which the second nearest threshold voltage to the first threshold voltage is set.

6. A writing method of a nonvolatile semiconductor memory device for storing data of 2 bits in one memory cell by setting threshold voltages of the memory cells into four thereof, comprising the steps of:

setting the four of the threshold voltage by changing them toward a predetermined direction starting from a first threshold voltage and sequentially setting the three of the threshold voltages in order of the remotest threshold voltage from the first threshold voltage, the nearest threshold voltage to the first threshold voltage, and the second remotest threshold voltage from the first threshold voltage.

7. A writing method of a nonvolatile semiconductor memory device according to Claim 6, wherein

when setting said nearest threshold voltage to the

first threshold voltage, said nearest threshold voltage to the first threshold voltage is also set to the memory cell to which the second nearest threshold voltage to the first threshold voltage is set.

8. A nonvolatile semiconductor memory device for storing data of 2 or more bits in one memory cell by setting threshold voltages of the memory cells into n ($n \geq 4$) thereof, wherein

said memory cell comprises an MOS-type field effect transistor (FET) having a control gate, a floating gate, a gate insulative film, a drain area, and a source area which are formed on a semiconductor substrate, and said memory cell for setting a threshold voltage of said MOS-type field effect transistor and storing information by changing an amount of charges which exist in said floating gate has memory arrays which are disposed like a matrix form,

said n of threshold voltages is set by changing them toward a predetermined direction starting from a first threshold voltage and (n - 1) of the threshold voltage except for the first threshold value is classified to k ($2 \leq k \leq n - 2$) groups so that, between the remotest threshold voltage from the first threshold voltage in one of the groups and the nearest threshold voltage to the first threshold voltage, there is no threshold voltage which belongs to the other groups, and

said (n - 1) of the threshold voltage is set starting from the group having the threshold voltage which is remoter

from the first threshold voltage and the threshold voltage in the same group is sequentially set starting from the threshold voltage which is nearer to the first threshold voltage.

9. A nonvolatile semiconductor memory device according to Claim 8, comprising

means for changing the amount of charges which exist in said floating gate by injecting electrons in said floating gate by use of a tunnel effect.

10. A nonvolatile semiconductor memory device according to Claim 8, comprising

means for changing the amount of charges which exist in said floating gate by injecting electrons in a high-energized state which is caused in a high electric-field area of a channel in the floating gate.